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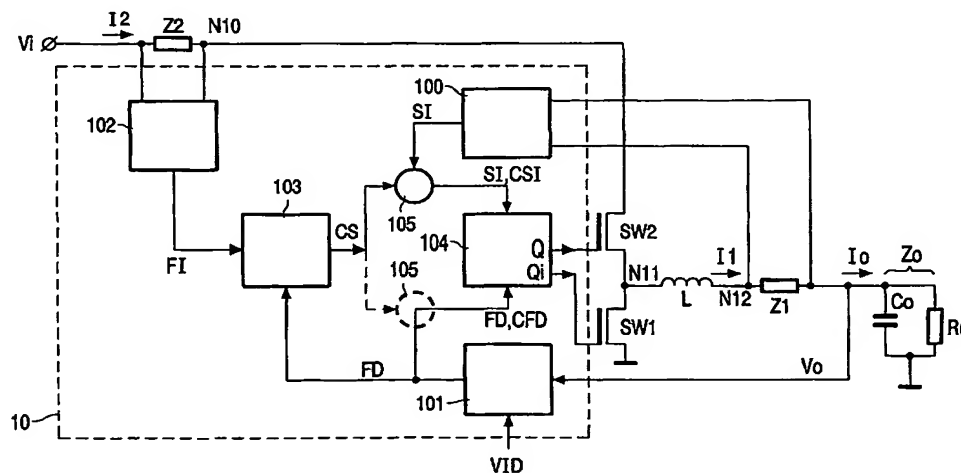
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(54) Title: A SWITCH MODE POWER CONVERTER



(57) Abstract: A load line regulated switched-mode power converter supplies an output voltage ( $V_o$ ) and an output current ( $I_o$ ) to a load ( $Z_o$ ). The power converter comprises an inductor ( $L$ ), a switch ( $SW_2$ ) coupled to the inductor ( $L$ ), a first impedance ( $Z_1$ ,  $R_s$ ,  $R_{cu}$ ), a second impedance ( $Z_2$ ,  $R_s$ ), and a power converter controller (10). The power converter controller (10) comprises a first sense circuit (100) to obtain momentary information ( $SI$ ) on a first current ( $I_1$ ) which flows through the first impedance ( $Z_1$ ), and which is related to the output current ( $I_o$ ). A difference between a zero load voltage ( $VID$ ) and the output voltage ( $V_o$ ) is determined (101) to obtain a difference level ( $FD$ ). A second sense circuit (102) supplies further information ( $FI$ ) on a second current ( $I_2$ ) which flows through the second impedance ( $Z_2$ ,  $R_s$ ), and which is related to the first current ( $I_1$ ). An integrator (103) integrates a difference between the further information ( $FI$ ) and the difference level ( $FD$ ) to obtain a correction signal ( $CS$ ). A switch controller (104, 105) receives the difference level ( $FD$ ), the momentary information ( $SI$ ) and the correction signal ( $CS$ ) to control the switch ( $SW_2$ ) to obtain a substantially zero correction signal ( $CS$ ) in a steady state.

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